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Assignment 3 Part 1

The UDP code works by creating a connectionless client and server. The client will send typed data, and then wait for the server response and print it to the screen, then repeat. The server waits for incoming data, gives a response, and then repeats. The server also validates the client's messages and either sends back errors for invalid messages, or echos messages if they are in the proper “you->server#msg” format. The server will also write valid messages from all clients to a single .txt file.

The TCP code works by creating a client and server with an active connection. If the server is not active, then the client will immediately close. The client looks for valid messages that contain a file, and if the file exists then it will send it to the server in chunks of 1024 bytes. The server maintains one thread per active connection, and will write these chunks to a new file. The client sends file metadata as “sizeInBytes filename”, and the server will then create that file and listen for that many bytes to be sent. There is no error handling or re-sending of data.

Screenshots of the UDP and TCP Client/Server are in their respective folders.